

PATENT APPLICATION

3661

E20030040

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Hui Zhang et. al

Serial No. 10/720,592

Filed: November 24, 2003

Assignee: ABB Research Ltd. et al.

For: AN INDUSTRIAL ROBOT WITH CONTROLLED FLEXIBILITY AND SIMULATED

FORCE FOR AUTOMATED ASSEMBLY

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment Commissioner For Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed is an Information Disclosure Statement (IDS) for the above-identified application. The art cited in the IDS was listed in an International Search Report (ISR) for the PCT application corresponding to the U.S. application. The ISR is attached. A fee is not required for the IDS since the IDS is being filed before receipt of a first office action.

Respectfully submitted,

Group Art Unit:

Docket Number:

Confirmation Number: 5029

Date: 0 16 06

Michael M. Rickin

Reg. No. 26,984 Attorney for Applicant

ABB Inc.

Legal Department – 4U6 29801 Euclid Avenue Wickliffe, OH 44092

440-585-7840

Approved for use through 09/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

AADEMA

Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

of

Complete if Known			
Application Number	10/720,592		
Filing Date	November 24, 2003		
First Named Inventor	Hui Zhang		
Art Unit	3661		
Examiner Name			
Attorney Docket Number	E30030040		

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number Number-Kind Code ^{2 (f known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	 	US-	+		
	ļ				
		US-			
		US-			
	-	US-			
		US-			
•		US-			
		US-			
-		US-			
		US-			
		US-			
•		US-			
		US-			
		US-			
		US-			
 		US-			

			IGN PATENT DOCU	JMENTS		
Examiner Cite Foreign Patent Do	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages		
		Country Code ³ -Number ⁴ -Kind Code ⁵ (<i>if known</i>)	MM-DD-YYYY		Or Relevant Figures Appear	T
		GB 2102590	02-02-1983	Custom Microdesign Ltd.		
						L
	-					L
						L
		İ		1		ı

Examiner		Date	
Signature		Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹Applicant's unique citation designation number (optional). ²See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

PTO/SB/08B (07-06) Approved for use through 09/30/2006. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE aperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known form 1449/PTO **Application Number** 10/720,952 INFORMATION DISCLOSURE **Filing Date** November 24, 2003 STATEMENT BY APPLICANT **First Named Inventor** Hui Zhang Art Unit 3661 (Use as many sheets as necessary) **Examiner Name Attorney Docket Number**

E20030040 · 1/2 ·

Sheet

2

of

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		NIRUT NAKSUIK: "The Implementation of a Natural Admittance Controller on an Industrial Robot" January 2000, Case Western Reserve University,	
		Department of Electrical Engineering and Computer Science, Cleveland, Ohio, XP002345462	
		SIDDHARTH R CHHATPAR: "Experiments in Force-Guided Robotic Assembly" January 1999, Case Western Reserve University,	
		Department of Electrical Engineering and Applied Science, Cleveland, Ohio, XP002345323	
		CHENG ZHANG: "Towards a Practical Robotic System for Industrial Mechanical Assembly" January 2001, Case Western Reserve University	
		Department of Electrical Engineering and Applied Science, Cleveland, Ohio, XP002345463	

Examiner	Date	
Signature	Considered	

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.